Applicants: John D. Newbold et al.

NOZZLE FOR PRECISION LIQUID DISPENSING AND METHOD OF MAKING



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AMENDED

WHAT IS CLAIMED IS:

- 1.) (Original): A nozzle for delivering a measured quantity of viscous liquid comprising:
 - an opening defined by a perimeter and a cylindrically-shaped barrel wall extending from said perimeter downward to a break point defined by a circle spaced-apart from said opening;
 - b) means for connecting said barrel wall of said nozzle to a reservoir from which a viscous liquid is transferable to said nozzle;
 - c) a cone-shaped wall extending downward from said circular break point and then inward there from to a circular exit opening; and,
 - d) a straight, small-diameter exit tube, of uniform diameter, extending from said circular exit opening to a circular exit aperture for dispensing the liquid from said nozzle;
 - e) wherein there is a controlled ratio of the internal diameter of said exit tube and the wall thickness of said exit tube.
- 2.) (Canceled)
- 23 3.) (Canceled)

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AMENDED

1	4.) (Original): The nozzle for delivering a measured quantity of viscous liquid of Claim 1
2	wherein the ratio of the internal diameter of said exit tube to the wall thickness of said exit
3	tube exceeds 7.5.
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5	5.) (Original): The nozzle for delivering a measured quantity of viscous liquid of Claim 1
6 7	wherein said opening is circular and said horizontal perimeter is about 25 mm in diameter.
8	6.) (Canceled)
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10	7.) (Currently amended): The nozzle for delivering a measured quantity of viscous liquid of
11	Claim 1 wherein said cone-shaped wall extending downward from said circular break point
12	and then inward there from to a circular exit opening has a wall convergence between about
13	5° and about 20°.
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15	8.) (Currently amended): The nozzle for delivering a measured quantity of viscous liquid of
16	Claim 1 wherein said cone-shaped wall extending downward from said circular break point
17	and then inward there from to a circular exit opening has a wall convergence of about 10°.
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19	9.) (Canceled)
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21	10.) (Canceled)
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23	11.) (Currently amended): The nozzle for delivering a measured quantity of viscous liquid of
24	Claim 1 wherein said flare wall extends inward from said perimeter about 5 mm.
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AMENDED

1	12.) (Canceled)
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3	13.) (Currently amended): The nozzle for delivering a measured quantity of viscous liquid of
4	Claim 1 wherein said cylindrically-shaped barrel wall extends downward from said flare
5 6	wall at an angle of about 2° with the vertical.
7	14.) (Canceled)
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9	15.) (Currently amended): The nozzle for delivering a measured quantity of viscous liquid of
10	Claim1 wherein said cone-shaped wall extends downward from said circular break point at
11	an angle of about 15° with the vertical.
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13	16.) (Canceled)
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15	17.) (Canceled)
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17	18.) (Canceled)
18	10) (Compoled)
19	19.) (Canceled)
20 21	20.) (Canceled)
22	20.) (Canceled)
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